

REMARKS

Claims 1, 4 to 8, 10 to 21, 23 to 29, 31, 34 to 36 and 38 to 43 are pending.

The Office Action objects to claims 9 and 10. Claim 9 has been cancelled and claim 10 has been amended to overcome the objection.

Claims 1, 4 to 11, 18, 19, 21 to 24, 28 to 29 and 31 to 36 were rejected under 35 U.S.C. §103(a) over Miroslav and Allcock and claims 12 to 17, 20 and 25 were rejected under 35 U.S.C. §103(a) over Miroslav, Allcock and Nielsen et al.

Claim 1 has been amended (October 21 Supplemental Amendment) to claim a method for determination of polymer molecular weight comprising a step of “determining off-line... molecular mass... on a diverted high molecular weight fraction” and claim 31 has been amended (October 21 Supplemental Amendment) to a system for the determination of polymer average molecular weight comprising an “off-line” molar mass detector. Support for the amendments is found in the specification at page 10, lines 22 to 29 and Figure 2. The specification at page 10, lines 22 to 29 states:

Alternatively, the molar mass determination may be conducted off-line after the concentration determination by diverting the high molecular weight fraction to a molar mass detector that has a cell capable of containing and effecting rapid mixing of the entire HMWF that is separable from the main flow of pumped solvent. The off-line embodiment permits more accurate determination of the average molecular weight and simplifies the calculation of average molecular weight. This is then equivalent to determination with zero dispersion or separation of the polymer but permits elimination of interfering low molecular weight substances. This configuration is shown in Figure 2.

Miroslav, Allcock and Nielsen et al. do not teach or suggest an “off-line” molar mass detection. The October 21 Office Action argues that with respect to claims 22 and 33 (“off-line” claims now cancelled in favor of independent amended claims 1 and 31) that “the examiner takes Official Notice of the equivalence of offline and online techniques in the analysis art...” Applicants hereby traverse this assertion. MPEP 2144.03 provides that “[i]f the applicant traverses such an assertion [Official Notice] the examiner should cite a reference in support of his or her position.”

“Off-line” molar mass detection that “permits more accurate determination of the average molecular weight and simplifies the calculation of average molecular weight” would not have been obvious in view of the Miroslav, Allcock and Nielsen et al. references on-line detection that does not improve accuracy or simplify the determination of average molecular weight. Claims 1 and 32 should be allowed. Claims 4 to 11, 18 to 27 depend from claim 1 and claims 34 to 36 depend from claim 31. The rejections of claims 4 to 11, 18 to 27, 31 and 34 to 36 should be withdrawn.

Claim 28 has been amended to a step of effecting a minimally dispersive separation to yield a high molecular weight fraction “comprising polycarbonate oligomers and polymers comprising at least two bisphenol A units....” Support for the amendment is found in the specification at page 8, lines 8 to 29. The specification page 8, lines 8 to 29 states:

A minimally dispersive separation is one that rapidly but substantially separates a high molecular weight fraction (HMWF) from a low molecular weight fraction (LMWF). The high molecular weight fraction is defined herein as comprising all oligomeric and polymeric products having at least two monomer units of at least one monomer. For example, the high molecular weight fraction of a sample comprising polycarbonate would comprise polycarbonate oligomers and polymers comprising at least two bisphenol A units.... In order to enable the fastest possible analysis time, it is preferred that the minimally dispersive separation create the least possible dispersion of the HMWF while maintaining its separation from the LMWF.

Miroslav and Allcock do not teach or suggest a “minimally dispersive separation... to yield a high molecular weight fraction... comprising polycarbonate oligomers and polymers comprising at least two bisphenol A units.” A minimally dispersive separation that enables the “fastest possible analysis” would not have been obvious in view of the Miroslav and Allcock. references non-minimally dispersive separation that does not provide the “fastest possible analysis.” Claim 29 depends from claim 28. The rejection of claims 28 and 29 should be withdrawn.

In view of the foregoing amendments and remarks and applicants' July 22, 2002 Amendment after Final Rejection under 37 C.F.R. §1.116, reconsideration and allowance of claims 1, 4 to 8, 10 to 21, 23 to 29, 31, 34 to 36 and 38 to 43 are respectfully requested.

Should the Examiner believe that any further action is necessary in order to place this application in condition for allowance, he is requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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Attachment:

Version with Markings to show changes made

VERSION WITH MARKINGS TO SHOW CHANGES MADE

10. (amended) The method of claim [9] 1, wherein the minimally dispersive separation yields a high molecular weight fraction substantially free of monomers and polymerization catalysts.